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RAW SEQUENCE LISTING

DATE: 06/19/2001

PATENT APPLICATION: US/09/459,062

TIME: 12:40:34

Input Set : A:\17634341.app

Output Set: N:\CRF3\06192001\1459062.raw

ENTERED

3 <110> APPLICANT: Tao, Tao Skiadopoulos, Mario H. Collins, Peter L. Murphy, Brian R. 8 <120> TITLE OF INVENTION: CONSTRUCTION AND USE OF RECOMBINANT PARAINFLUENZA VIRUSES EXPRESSING A CHIMERIC GLYCOPROTEIN 11 <130> FILE REFERENCE: 17634-000340US 13 <140> CURRENT APPLICATION NUMBER: 09/459,062 C--> 14 <141> CURRENT FILING DATE: 2001-06-04 16 <150> PRIOR APPLICATION NUMBER: 09/083,793 17 <151> PRIOR FILING DATE: 1998-05-22 19 <150> PRIOR APPLICATION NUMBER: 60/059,385 20 <151> PRIOR FILING DATE: 1997-09-19 22 <150> PRIOR APPLICATION NUMBER: 60/047,575 23 <151> PRIOR FILING DATE: 1997-05-23 25 <160> NUMBER OF SEQ ID NOS: 57 27 <170> SOFTWARE: PatentIn Ver. 2.1 29 <210> SEQ ID NO: 1 30 <211> LENGTH: 42 31 <212> TYPE: DNA 32 <213> ORGANISM: Artificial Sequence 34 <220> FEATURE: 35 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking sequence of measles HA gene insert for N-P and P-M junctions. 39 <400> SEQUENCE: 1 40 cttaagaata tacaaataag aaaaacttag gattaaagag cg 42 43 <210> SEQ ID NO: 2 44 <211> LENGTH: 36 45 <212> TYPE: DNA 46 <213> ORGANISM: Artificial Sequence 48 <220> FEATURE: 49 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking 50 sequence of measles HA gene insert for N-P and P-M 51 junctions. 53 <400> SEQUENCE: 2 54 gatccaacaa agaaacgaca ccgaacaaac cttaag 36 57 <210> SEQ ID NO: 3 58 <211> LENGTH: 101 59 <212> TYPE: DNA 60 <213> ORGANISM: Artificial Sequence 62 <220> FEATURE: 63 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking sequence of measles HA gene insert for HN-L junction. 67 <400> SEQUENCE: 3 68 aggectaaaa gggaaatata aaaaacttag gagtaaagtt aegeaateea aetetaetea 60

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69 tataattgag gaaggaccca atagacaaat ccaaattcga g 101 72 <210> SEQ ID NO: 4 73 <211> LENGTH: 79 74 <212> TYPE: DNA 75 <213> ORGANISM: Artificial Sequence 77 <220> FEATURE: 78 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking sequence of measles HA gene insert for HN-L 80 junction. 82 <400> SEQUENCE: 4 83 tcataattaa ccataatatg catcaatcta tctataatac aagtatatga taagtaatca 60 84 gcaatcagac aataggcct 87 <210> SEQ ID NO: 5 88 <211> LENGTH: 83 89 <212> TYPE: DNA 90 <213> ORGANISM: Artificial Sequence 92 <220> FEATURE: 93 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward primer 94 for PCR of measles HA gene insert for N-P and P-M 95 junction. 97 <400> SEQUENCE: 5 98 ttaatettaa gaatatacaa ataagaaaaa ettaggatta aagagegatg teaccacaac 60 99 gagaccggat aaatgccttc tac 102 <210> SEQ ID NO: 6 103 <211> LENGTH: 67 104 <212> TYPE: DNA 105 <213> ORGANISM: Artificial Sequence 107 <220> FEATURE: 108 <223> OTHER INFORMATION: Description of Artificial Sequence: Reverse primer 109 for PCR of measles HA gene insert for N-P and P-M 110 junctions. 112 <400> SEOUENCE: 6 113 attattgctt aaggtttgtt cggtgtcgtt tctttgttgg atcctatctg cgattggttc 60 114 catcttc 117 <210> SEQ ID NO: 7 118 <211> LENGTH: 55 119 <212> TYPE: DNA 120 <213> ORGANISM: Artificial Sequence 122 <220> FEATURE: 123 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward primer 124 for PCR of measles HA gene insert for HN-L junction. 127 <400> SEQUENCE: 7 128 gacaataggc ctaaaaggga aatataaaaa acttaggagt aaagttacgc aatcc 55 131 <210> SEQ ID NO: 8 132 <211> LENGTH: 68 133 <212> TYPE: DNA

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137 <223> OTHER INFORMATION: Description of Artificial Sequence: Reverse/Forward primer for PCR of measles HA gene 138 139 insert for HN-L junction. 141 <400> SEQUENCE: 8 142 gtagaacgcg tttatccggt ctcgttgtgg tgacatctcg aatttggatt tgtctattgg 60 143 gtccttcc 146 <210> SEQ ID NO: 9 147 <211> LENGTH: 77 148 <212> TYPE: DNA 149 <213> ORGANISM: Artificial Sequence 151 <220> FEATURE: 152 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward primer for PCR of measles HA gene insert for HN-L 153 junction. 156 <400> SEQUENCE: 9 157 cagtcacccg ggaagatgga accaatcgca gatagtcata attaaccata atatgcatca 60 158 atctatctat aatacaa 77 161 <210> SEQ ID NO: 10 162 <211> LENGTH: 28 163 <212> TYPE: DNA 164 <213> ORGANISM: Artificial Sequence 166 <220> FEATURE: 167 <223> OTHER INFORMATION: Description of Artificial Sequence: Reverse primer 168 for PCR of measles HA gene insert for HN-L 169 junction. 171 <400> SEQUENCE: 10 28 172 ccatgtaatt gaatccccca acactagc 175 <210> SEQ ID NO: 11 176 <211> LENGTH: 28 177 <212> TYPE: DNA 178 <213> ORGANISM: Artificial Sequence 180 <220> FEATURE: 181 <223> OTHER INFORMATION: Description of Artificial Sequence: 182 Forward/Reverse primer for PCR of measles HA gene 183 insert for HN-L junction. 185 <400> SEQUENCE: 11 186 cggataaacg cgttctacaa agataacc 28 189 <210> SEQ ID NO: 12 190 <211> LENGTH: 25 191 <212> TYPE: DNA 192 <213> ORGANISM: Artificial Sequence 194 <220> FEATURE: 195 <223> OTHER INFORMATION: Description of Artificial Sequence: Reverse primer for PCR of measles HA gene for N-P and M-P 197 junctions. 199 <400> SEQUENCE: 12. 200 ccatcttccc gggtgactgt gcagc 25 203 <210> SEQ ID NO: 13

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DATE: 06/19/2001 TIME: 12:40:34

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- 205 <212> TYPE: DNA
- 206 <213> ORGANISM: Artificial Sequence
- 208 <220> FEATURE:
- 209 <223> OTHER INFORMATION: Description of Artificial Sequence: Upstream HPIV2
- 210 HN primer.
- 212 <400> SEQUENCE: 13
- 213 gggccatgga agattacagc aat

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- 216 <210> SEQ ID NO: 14
- 217 <211> LENGTH: 25
- 218 <212> TYPE: DNA
- 219 <213> ORGANISM: Artificial Sequence
- 221 <220> FEATURE:
- 222 <223> OTHER INFORMATION: Description of Artificial Sequence: Downstream
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- 225 <400> SEQUENCE: 14
- 226 caataagctt aaagcattag ttccc

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- 229 <210> SEQ ID NO: 15
- 230 <211> LENGTH: 31
- 231 <212> TYPE: DNA
- 232 <213> ORGANISM: Artificial Sequence
- 234 <220> FEATURE:
- 235 <223> OTHER INFORMATION: Description of Artificial Sequence: Upstream HPIV2
- 236 HN primer.
- 238 <400> SEQUENCE: 15
- 239 gcgatgggcc cgaggaagga cccaatagac a

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- 242 <210> SEQ ID NO: 16
- 243 <211> LENGTH: 30
- 244 <212> TYPE: DNA
- 245 <213> ORGANISM: Artificial Sequence
- 247 <220> FEATURE:
- 248 <223> OTHER INFORMATION: Description of Artificial Sequence: Downstream
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- 251 <400> SEQUENCE: 16
- 252 cccgggtcct gatttcccga gcacgctttg

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- 255 <210> SEQ ID NO: 17
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- 258 <213> ORGANISM: Artificial Sequence
- 260 <220> FEATURE:
- 261 <223> OTHER INFORMATION: Description of Artificial Sequence: HPIV1 HN
- 262 primer.
- 264 <400> SEQUENCE: 17
- 265 agtggctaat tgcattgcat ccacat

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- 268 <210> SEQ ID NO: 18 269 <211> LENGTH: 24
- 270 <212> TYPE: DNA
- 271 <213> ORGANISM: Artificial Sequence
- 273 <220> FEATURE:
- 274 <223> OTHER INFORMATION: Description of Artificial Sequence: HPIV1 HN

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VERIFICATION SUMMARY

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date